

Appl. No. 10/747,923
Amdt. dated December 23, 2008
Reply to Office Action of November 26, 2008

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A disposable absorbent article comprising a nanofabricated attachment means comprising adhesive hairs disposed on a flexible substrate wherein said hairs are effective to adhesively engage an opposing surface comprising a polymeric film or a fibrous web, wherein the attachment means has a packing density of at least 500 hairs per square millimeter, and wherein the hairs do not consist of a spatula or protrusion positioned at a terminal end of the hairs.
2. (canceled)
3. (original) The article of claim 1 wherein said hairs have an average diameter of about 50 microns or less and an average height-to-diameter ratio of about 3 or greater.
4. (original) The article claim 1 wherein said hairs are effective to adhesively engage an opposing surface comprising a polymeric film or fibrous web with an average adhesive force of 10 nanoNewtons or greater per hair.
5. (currently amended) A disposable absorbent article comprising a gecko-like adhesive fastener including a flexible substrate, a plurality of adhesive hairs rising from said substrate, said adhesive hairs each having a base section, a midsection, a top section, a height of about 0.5 microns to about 8 millimeters, and a diameter of about 0.05 microns to about 50 microns, wherein the hairs do not consist of a spatula or protrusion positioned at a terminal end of the top section.

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6. (canceled)

7. (original) The article of claim 5 wherein said hairs have a height of about 2 microns to about 1000 microns.

8. (original) The article of claim 5 wherein said hairs have a diameter of about 0.05 microns to about 10 microns.

9. (original) The article of claim 5 wherein said hairs are spaced apart by a first distance of about 1 micron to about 1000 microns.

10. (original) The article of claim 5 wherein said hairs are spaced apart by a second distance of about 1 micron to about 1000 microns.

11. (original) The article of claim 5 wherein the ratio of a first distance between said hairs to the diameter of said hairs is about 3 to about 100.

12. (original) The article of claim 5 wherein the ratio of a second distance between said hairs to the diameter of said hairs is about 3 to about 100.

13. (original) The article of claim 5 wherein the ratio of the height of said hairs to the diameter of said hairs is about 2 to about 1000.

14. (original) The article of claim 5 wherein at least one of said hairs is perpendicular to the plane of said substrate.

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15. (original) The article of claim 5 wherein at least one of said hairs is oriented at an angle between 0° and 90° to the plane of said substrate.
16. (original) The article of claim 5 wherein at least one of said hairs is axisymmetric.
17. (canceled)
18. (canceled)
19. (canceled)
20. (original) The article of claim 5 wherein at least one of said hairs is hollow.
21. (original) The article of claim 5 wherein said at least one hair comprises hollow materials, microspheres, carbon nanotubes, zeolites, or combinations thereof.
22. (original) The article of claim 5 wherein said hairs comprise molecules with hollow chambers.
23. (original) The article of claim 22 wherein said molecules are cyclodextrins, crown ethers, polyhedral oligomeric silsequioxanes, or combinations thereof.
24. (original) The article of claim 5 wherein said substrate is apertured.
25. (original) The article of claim 5 wherein said substrate is a liquid impervious web.

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26. (original) The article of claim 5 wherein the thickness of said substrate comprises a repeating pattern of thickness variations.
27. (original) The article of claim 5 wherein said substrate is creped, embossed, apertured, coated, or combinations thereof.
28. (original) The article of claim 27 wherein said coating is on at least one side of said substrate.
29. (original) The article of claim 27 wherein said coating is hydrophobic.
30. (original) The article of claim 27 wherein said coating is hydrophilic.
31. (original) The article of claim 27 wherein said coating is a metal oxide.
32. (original) The article of claim 27 wherein said metal oxide is titanium dioxide treated with a UV absorbing material that is thermally treated.
33. (original) The article of claim 5 wherein said substrate comprises regions of elastic material.
34. (original) The article of claim 5 wherein said substrate is substantially elastic and homogeneous.
35. (currently amended) The article of claim 5 wherein said substrate contains discrete ~~eleastic~~ elastic regions separated by less elastic regions.

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36. (currently amended) The article of claim 5 wherein said substrate contains discrete elastic elastic regions separated by inelastic regions.

37. (original) The article of claim 5 wherein said fastener is stretchable.